

REMARKS

Claim Status

Claims 20-28 are currently pending. Claims 20 and 26 are amended without prejudice.

Claims 57 – 59 are canceled without prejudice and without conceding the merits of the rejection. We have canceled these claims to simplify the issues for this amendment and in preparation for appeal. We expressly reserve the right to present these claims in one or more continuing applications.

Art-based Rejection

The pending claims stand rejected as being unpatentable under U.S. Patent No. 5,961,603 (hereafter “the Kunkel patent”) in view of U.S. Patent No. 5,822,432 (hereafter “the Moskowitz patent”).

We respectfully traverse these rejections.

Claim 20

Claim 20 is amended to recite, in combination with other features, a digital watermark detector to extract the identifier from data representing picture or audio portions of the received content. The amendment clarifies for this claim that the digital watermark identifier is carried “in band” (e.g., through changes to DCT coefficients, frequency domain values, color or pixel values, compression values, time samples or amplitude values, etc.) and not “out-of- band” (e.g., header or Vertical Blanking Interval – “VBI” – data).

The Kunkel patent suggests carrying its so called ID tag out-of-band (please see, e.g., Col. 5, lines 35-43) and not in-band (e.g., digital watermarking) as recited in claim 20.

Moreover, there is no discussion, suggestion or motivation in the cited passages of the Kunkel patent to change its operation to accommodate digital watermarking. In fact, the strong “out of band” notion is enforced, e.g., in discussion of a preferred embodiment that does not even detect ID tags from VBI lines at the cable head end, but, instead, sends

a stream of ID tags in a separate transmission. Please see Col. 6, lines 15-22. We submit that this discussion teaches away from detecting the ID tag at the cable head end (even though it states it could be done) by presenting a technique – separate transmission – perhaps to improve efficiency.

The office action appears to recognize this “in-band” or digital watermarking deficiency because it turns to the Moskowitz patent for digital watermarking teachings. Please see the office action on page 5, last paragraph.

But the cited Col. 1, lines 15-20, Moskowitz passage doesn’t teach or suggest placing an in-band or digital watermark decoder in a cable head end, or an interactive television system as claimed.

Thus, given the heavy reliance in the Kunkel patent on out-of-band identifiers (e.g., VBI tags or file headers) and the lack of suggestion in the Moskowitz patent of integrating digital watermark in a cable head end to facilitate interactive TV, we respectfully suggest that the proposed combination of the Kunkel patent and the Moskowitz patent should not be made and is improper.

And we respectfully submit that one of ordinary skill in the art when reading the Kunkel patent’s discussion of separate transmissions of ID tags and content to the cable head end (please see Col. 6, lines 15-20) would not be motivated to go out and find a different signaling technique, let alone an in-band (e.g., digital watermarking) signaling technique. We also submit that one of ordinary skill in the art when reading the cited Moskowitz patent’s Col. 1, lines 15-20, would not be motivated to modify a cable head end utilizing an out-of band signaling technique to achieve the interactive television system recited in claim 20.

We respectfully submit that claim 20 stands ready for allowance.

Claim 26

Claim 26 is amended to recite, in combination with other features, a cable head end to receive content steganographically embedded with a unique identifier hidden in data representing picture or audio portions of the content. The amendment clarifies for this claim that the identifier is hidden “in band” (e.g., through changes to DCT

coefficients, frequency domain values, color or pixel values, compression values, time samples or amplitude values, etc.) and not "out-of-band" (e.g., header or VBI data).

As discussed above with respect to claim 20, the Kunkel patent suggests carrying its so called ID tag out-of-band (please see, e.g., Col. 5, lines 35-43) and not in-band (e.g., as with the claimed steganography) as recited in claim 26.

And we respectfully submit that one of ordinary skill in the art when reading the Kunkel patent's discussion of separate transmissions of ID tags and content to the cable head end (please see Col. 6, lines 15-20) would not be motivated to go out and find a different signaling technique, let alone an in-band (e.g., digital watermarking) signaling technique. We also submit that one of ordinary skill in the art when reading the cited Moskowitz patent's Col. 1, lines 15-20, would not be motivated to modify a cable head end utilizing an out-of band signaling technique to achieve the interactive television system recited in claim 26.

We respectfully submit that claim 26 stands ready for allowance.

Request for Interview:

We respectfully request and interview with the Examiner to discuss this Amendment. The Examiner is invited to contact the undersigned to arrange a convenient time in the event that this Amendment is picked up prior to the scheduling of an interview.

Conclusion

A notice of allowance is respectfully requested. Nevertheless, the Examiner is invited to telephone the undersigned at 503-469-4685 if any question arises.


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Respectfully submitted,

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By 

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